DOCUMENT RESUME

ED 120 030 SO 008 728

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TITLE Effect of "Man: A Course of Study" on Urban Students' Self Concept as Learners.
PUB DATE Nov 75
NOTE 16p.; Paper presented at the Annual Meeting of the National Council for the Social Studies (Atlanta, Georgia, November 26-29, 1975)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage
DESCRIPTORS *Curriculum Evaluation; Elementary Education; Instructional Innovation; Learning; Learning Characteristics; *Learning Motivation; Learning Readiness; Negro Achievement; Problem Solving; Program Effectiveness; Racial Differences; *Self Concept; Self Concept Tests; Social Science Research; *Social Studies; Task Performance
IDENTIFIERS MACOS; *Man A Course of Study

ABSTRACT

The purpose of this study was to measure the self-concept of students enrolled in "Man: A Course of Study" and compare those results with students enrolled in other social studies classrooms. Seven-hundred and twenty-one MACOS students and 736 non-MACOS students in Atlanta public elementary schools participated in the survey. The students were measured for total self-concept as a learner, motivation, task orientation, concept of themselves as problem solvers, and how they saw themselves in relation to other students in the class. The results indicate that only the dependent-variable motivation showed a significant, positive increase with the experimental group. However, when tested alone, MACOS materials significantly affected black students. Particularly, black males indicated that they were more motivated by the MACOS curriculum. Black students in the sixth grade perceived themselves as significantly better problem solvers and black males saw themselves as stronger members of a class. (Author/DE)

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Effect of Man: A Course of Study on Urban Students' Self Concept as Learners

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Mercer University in Atlanta

A paper presented to the
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Objectives of Inquiry

Man: A Course of Study (MACOS) is a one-year, social science course designed for upper elementary students, based upon the instructional theory of Jerome Bruner that curriculum design be based upon the structures of the academic disciplines. Bruner stated that one of the goals of Man: A Course of Study was, "To give our pupils respect for and confidence in the powers of their own mind." (Bruner,1966)

The purpose of this study was to measure the self-concept of students enrolled in Man: A Course of Study and compare those results with students enrolled in other social studies classrooms. The self concept of the student as a learner was specifically measured, for this is the area of the child's life that relates most to the stated goal of the course--the opinion of oneself in the domain of the school, specifically as a learner. The instrument selected to measure this specific area of self concept was Self Concept as a Learner (SCAL), which is divided into four components--Motivation, Task Orientation, Problem Solving, and Class Membership. A total score is secured in addition to the four sub-scores.

For purposes of this study the following null hypotheses were postulated and examined:

1. There will be no significant difference in self-concept of students as learners for MACOS students than for non-MACOS students.

2. There will be no significant difference on Motivation scores for MACOS students than non-MACOS students.

3. There will be no significant difference on scores for Task Orientation for MACOS students than for non-MACOS students.

4. There will be no significant difference on scores for Problem Solving for MACOS students than for non-MACOS students.

5. There will be no significant difference on scores for Class Membership for MACOS students than for non-MACOS students.

Theoretical Framework

The concept of self, its development through interaction with the environment, and the perception of self as described in self-reports has been well documented. (Mead, 1940; Rogers, 1956; Kinch,1963; Combs, Soper and Courson, 1963) Included in the environmental influences on self-concept are teaching strategies, learning environments and those deemed significant others by the individual. (Shymansky, et al., 1974; Dillon and Franks, 1975; Staines, 1958) The relationship between self-concept and ethnic minorities has been unclear. (Zirkel and Moses, 1971; Kleinfeld, 1972) However reasearch has shown the significant and positive correlation between self-concept and performance in an academic role. (Brookover, Paterson, and Thomas 1962)

The self-concept as a learner is one aspect of the measurement of a student's self-concept. Wiesen (1965) reported a positive relationship between Self Concept as a Learner and the organizational

climate of the classroom. As the classroom climate became more rigid, the Self Concept as a Learner score decreased.

In sum, the teacher, teaching process, curriculum materials, and organizational climate have an effect on the student's self-concept, specifically the self-concept as a learner in an academic environment.

The present research attempted to focus on the curriculum, Man: A Course of Study, and its corresponding suggested teaching strategies to determine the effect on students' self concept as learners.

Methodology

The Self Concept as a Learner scale, developed by Waetjen, was administered to a random sample of Atlanta Public Schools' Man: A Course of Study students, and non-Mar: A Course of Study students in Atlanta schools where MACOS was not part of the curriculum, in the fall and spring of the academic year. I.Q. scores and reading level for each student tested in the fall were secured for use as covariates in the analysis of the data. Comparisons were made only on those students for whor the data was available and who completed the course. For statistical analysis, there were 721 MACOS students and 736 non-MACOS students. The total sample studied was 1,457 students. As a further control for reading ability, the statements of the scale were read to the students.

The Self Concept as a Learner scale (SCAL), a fifty item, Likert-type test was reported to have test-retest reliabilities for the total score and sub-scores ranging from .80 to .91. (Olavarri, 1967; Bouchard, 1970) The four individual factors associated with the Self Concept as

A Learner Scale are defined as:

1. Total Self Concept as a Learner--The student's opinion of himself as a learner.

2. Motivation--This factor is designed to determine the degree to which the student perceives himself motivated to do school work.

3. Task Orientation--This factor refers to the way a pupil sees himself relating to learning activities.

4. Problem Solving--This factor determines the view that a student has of himself as a problem solver.

5. Class Membership--This factor is designed to find out how the student sees himself in relation to other students in the class.

Experimental Design

A statistical analysis utilizing multivariate analysis of covariance was employed for student outcomes, with covariates of I.Q. scores and reading scores. Data were analyzed in a 2 X 2 X 2 X 2 design for MACOS and Non-MACOS, sixth and seventh grades, male and female, and Black and White. Multivariate tests were run for significance of the four independent variables, Treatment, Grade, Race and Sex, along with the univariate F test for each of the independent variables. Each of the dependent variables is discussed by considering the factors, Treatment, Sex, Grade, and Race, and the interaction of these factors. The acceptable level of significance was $p < .05$. Table 1 indicates the number of students in each of the control and experimental cells, separated into sixth and seventh grades, Black and White, male and female.

Results

Each of the dependent variables will be discussed separately.

Self Concept as a Learner - Total Score

For each of the independent variables, Treatment, Grade, Race

TABLE 1

NUMBER OF STUDENTS IN CONTROL AND EXPERIMENTAL GROUPS
BY GRADE, RACE, AND SEX

Control Group N = 735

Sixth Grade - Total = 360

Black Males	Black Females	White Males	White Females
130	152	32	46

Seventh Grade - Total = 375

Black Males	Black Females	White Males	White Females
124	160	45	46

Total Black - 566 | Total White - 169
Total Male - 331 | Total Female - 404

Experimental Group N = 721

Sixth Grade - Total = 376

Black Males	Black Females	White Males	White Females
139	157	39	41

Seventh Grade - Total = 345

Black Males	Black Females	White Males	White Females
116	175	27	27

Total Black - 587 | Total White - 134
Total Male - 321 | Total Female - 400

and Sex, there was no significant difference from level to level. The mean gain for Control (Non-MACOS) students was +1.446 and the mean gain for Experimental (MACOS) students was +0.967. Only when the seventh grade was analyzed for the effect of Sex was there any significant difference. ($p < .05$). Seventh grade males had a mean change score of +2.480, but seventh grade females had a mean change of -0.628.

Motivation

For the total group Treatment effect, Motivation was significant ($p < .05$). The Control (Non-MACOS) group mean change score was -0.452 and the Experimental (MACOS) group mean change score was +0.109.

When Black students were analyzed alone, the Black control mean change was -0.457 and Black Experimental students' mean change was +0.038 ($p < .05$). For the dependent variable of Motivation the interaction of Race with Sex for the total group was significant ($p < .05$). Figure 1 indicates the mean changes for the interaction of the effects of Race and Sex.

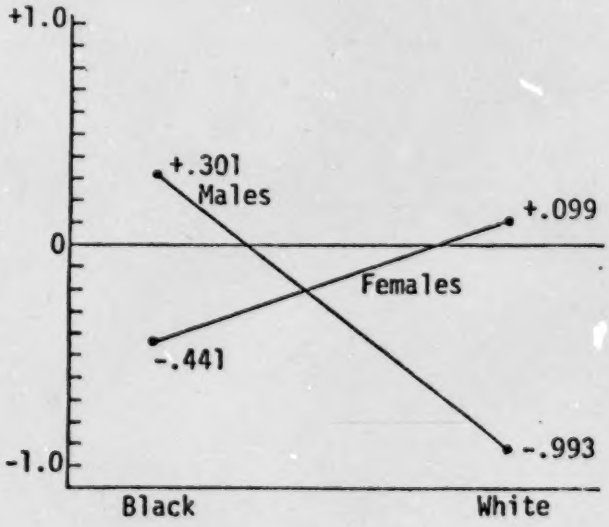

Figure 1.--Mean change scores on Motivation, Interaction of Race with Sex

Black males and White females had higher mean change scores than their counterparts of the opposite sex. This interaction accounted for the fact that the total group tests of Sex and Race were not significant.

When sixth grade students were analyzed, the interaction of Race with Sex was significant ($p < .05$). Of course, this is just an additional confirmation of the total group interaction. A graph of the interaction can be seen in Figure 2. Again, the indication is that one sex in one race will score high, while the opposite situation occurs in the other race. It is apparent that different sexes and races exhibit unique patterns of change with regard to Motivation.

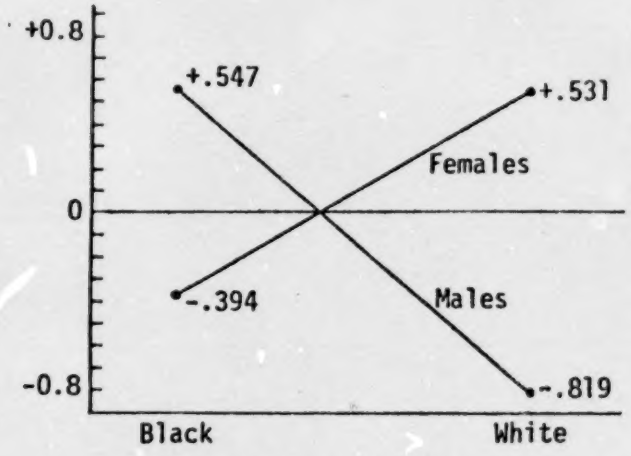

Figure 2.--Sixth grade mean change scores on Motivation, Interaction of Race with Sex

Task Orientation

There was no instance when the dependent variable, Task Orientation, was significant either for the effects of Treatment, Grade, Race, or Sex, or for an interaction of these effects. The mean gain for the

Control (Non-MACOS) students was +0.506 and the mean gain for Experimental (MACOS) students was +0.106.

Problem Solving

For the Treatment effect there was no significant difference in scores on Problem Solving. The mean gain for Control (Non-MACOS) group was +0.463 and the mean gain for Experimental (MACOS) students was +0.598.

When the Grade effect was tested, the mean change score for sixth grade was +0.946 and the mean change score for seventh grade was +0.108 ($p < .01$).

Black students were analyzed separately for the Problem Solving variable. The Grade effect was significant ($p < .05$). Black sixth grade students' mean change score was +0.991 and Black seventh grade mean change score was +0.214.

Thus, for the total group and for Black students alone, the sixth grade mean gain for Problem Solving was higher than the seventh grade mean gain score.

Class Membership

There was no significant difference in the total group for any single effect on the Class Membership variable. The mean change for the Control (Non-MACOS) group was +0.137; the mean change for the Experimental (MACOS) group was -0.069. The interaction of Sex with treatment for the total group was significant ($p < .05$). Figure 3 shows the mean change scores for that interaction.

Females in the Experimental group had a mean change of -0.335 while males in the Experimental group had a mean change of +0.262.

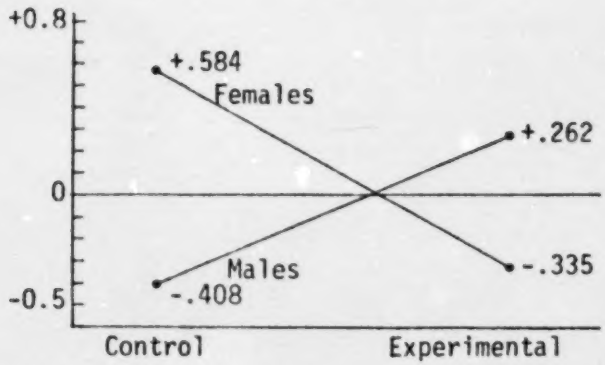

Figure 3.--Total group mean change scores on Class Membership, Interaction of Sex with Treatment

For sixth grade Class Membership, the interaction of Sex with Treatment was significant ($p < .01$). Figure 4 shows this interaction where Experimental males had a mean change of +0.401 and Experimental females had a mean change of -0.122.

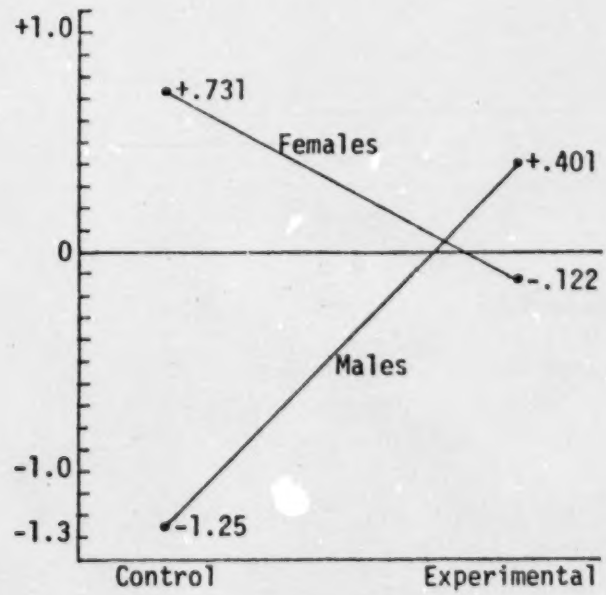

Figure 4.--Sixth grade mean change scores on Class Membership, Interaction of Sex with Treatment

The interaction of Sex with Treatment on the Class Membership variable was significant for the Black students alone ($p < .01$). Figure 5 indicates the interaction. Again, Experimental males had a positive mean change and Experimental females had a negative mean change on the variable.

Since males and females had such inverse patterns of change, the total group Treatment effect was rendered insignificant. Figures 4 and 5 show that the Control group differs markedly from the Experimental group when males and females were studied separately.

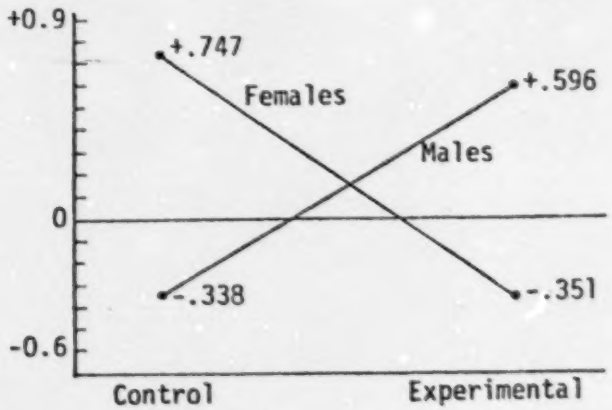

Figure 5.--Black students' mean change scores on Class Membership, Interaction of Sex with Treatment

Tests of Hypotheses

Hypothesis 1 Self Concept as a Learner--Total Score was accepted. The univariate F test was not significant ($F = 0.072$, $p < .788$).

Hypothesis 2 Motivation was rejected. The univariate F test indicated that the difference was significant ($F = 3.718$, $p < .054$).

Hypothesis 3 Task Orientation was accepted. The univariate F test was not significant ($F = 0.658$, $p < .417$).

Hypothesis 4 Problem Solving was accepted. The univariate F test was not significant ($F = 0.091$, $p < .763$).

Hypothesis 5 Class Membership was accepted. The univariate F test was not significant ($F = 0.275$, $p < .600$).

Significance of the Study

The dependent variable, Motivation, showed a significant difference with the Experimental group having a mean change score of +0.109 and the Control group having a mean change score of -0.452. Black students were found to be significantly influenced by the MACOS materials. The effect was greatest on Black males and significantly so at the sixth grade level. Thus, Black students, and particularly sixth grade Black males, indicated they perceive themselves as motivated to do school work when involved in the MACOS curriculum. Considering the Piagetian Concrete Operational Stage, these children may still be cognitively oriented to the present. The motivation to do school work, as indicated by the students, would be beneficial to keep them involved and interested in school. The unusual nature of the course, its high film content, attractive concept booklets, and student activities designed for group work may contribute to sixth grade students enjoying coming to Man: A Course of Study class and thus they indicate they are motivated to do school work.

Sixth grade students perceived themselves as better problem solvers than seventh grade students. Black students at the sixth grade perceived themselves as significantly better problem solvers than their seventh grade counterparts.

Sixth grade MACOS males saw themselves as strong members of the

class, more so than the non-MACOS males. In addition, when Black students were analyzed alone the male MACOS students scored significantly higher on Class Membership though control females had a greater mean gain. Overall, then sixth grade students made greater gains, and particularly Black male sixth graders.

The students involved in this study may be described as transescent, that is, they are the "in-between" child. These chilren need an open, understanding atmosphere in the classroom. In addition, they work best in short planning units which provide variety and mental stimulation along with opportunities for success. Man: A Course of Study provides each of these factors, enabling students to experience success, studying topics they enjoy. Thus students indicate they are motivated to do school work. For this age child then, Man: A Course of Study does provide the transescent child the opportunity to enjoy success, thus motivating them to remain in the classroom, feeling a part of the group, and continuing to learn. If the goals of a school system include the motivation to learn, particularly for Black students in the central city, then this research indicates Man: A Course of Study will further this goal.

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